

714002/19/05

Revised

CITY OF RIVERSIDE
HUMAN RESOURCES DEPARTMENT
CLASSIFICATION SPECIFICATION

TITLE: PRINCIPAL ENGINEER

DEFINITION

Under general direction, to plan, assign, supervise and review professional engineering work as the head of a major engineering section; to assist in developing and carrying out policies and programs; and to do related work as required.

REPORTS TO: Varies

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from either the Deputy Public Works Director/City Engineer, Public Utilities Assistant Director/Energy Delivery, or Public Utilities Assistant Director/Water. Exercises general supervision over Senior Engineers, Associate Engineers and Assistant Engineers.

EXAMPLES OF DUTIES

Typical duties may include, but are not limited to, the following:

- Assist in the development and implementation of goals, objectives, policies and priorities.
- Confer with supervisors and assistants regarding project priorities and progress.
- Supervise and participate in the preparation and administration of the capital improvement program and budget.
- Supervise and participate in the preparation of special engineering studies and reports.
- Coordinate activities with other City Departments, Divisions, and Sections and with outside agencies.
- Prepare and administer section budget.
- Supervise, train, and evaluate professional and technical subordinates.

In addition, when assigned as a Principal Electrical Engineer:

- Supervise in the development of plans and estimates for construction and major repair of electrical systems including underground and overhead transmission and distribution lines, street lights, substations, communications, generation and related facilities.
- Participate in development of power contracts with other utilities and implementation of programs.
- Supervise and participate in electrical system planning and load management. Review and approve engineering drawings, work orders and purchase orders.
- Serve as staff to a variety of City commissions, boards and committees on electric utility matters.
- Direct and supervise technology development and support.
- Serve as Acting Public Assistant Director/Energy Delivery as required.

In addition, when assigned as a Principal Water Engineer:

- Supervise the development of plans and estimates for construction and maintenance of water systems including transmission and distribution mains, pump stations, pressure regulating stations, reservoirs and related facilities.
- Participate in development of contracts with other utilities and private developments.
- Supervise and participate in water system planning and water supply management.
- Supervise and participate in domestic and irrigation water system and water supply planning.
- Serve as staff to a variety of City commissions, boards and committees on water related matters.
- Serve as Acting Public Utilities Assistant Director/Water as required.

In addition, when assigned as a Principal Engineer in Public Works:

- Supervise the development of plans and estimates for construction and major repair of public works systems.
- Review and sign engineering drawings, work orders and purchase orders.
- Serve as staff to a variety of City commissions, boards and committees on public works matters.
- Serve as Acting Deputy Public Works Director - Engineering Services as required.

QUALIFICATIONS:

Knowledge of:

- Applicable federal and state laws and regulations.
- Modern developments, current literature and sources of information regarding the assigned area of engineering.
- Applicable laws and regulatory codes related to development and construction in the area of assignment.
- Principles and practices of organization, administration, budget and personnel management.
- Principles and practices of electrical engineering and other engineering disciplines used in the electric utility and/or communication industry.
- Methods and techniques used in the design and construction of a variety of electric utility and/or communication projects.
- Technical report writing.
- Computers and computer programs.

Principal Water Engineer:

- Principles and practices of water engineering and engineering economics.
- Methods and techniques used in the design and construction of a variety of water utility projects.
- Principles and practices of water resource planning.

Public Works Engineer:

- Principles and practices of engineering.
- Methods and techniques used in the design and construction of a variety of public works or water utility projects.

Principal Electrical Engineer:

- Principle and practices of electric utility engineering and engineering economics.
- Methods, techniques and standards used in the design, construction and operation of a variety of electric utility projects.

Ability to:

- Communicate clearly and concisely, orally and in writing.
- Plan, direct and coordinate projects within an assigned area.
- Supervise the preparation of specifications, cost estimates, work schedules, plans, maps and reports.
- Make complex engineering computations and to check, design and supervise the construction of a wide variety of public and private facilities.

Principal Electrical Engineer Education and Experience:

Any combination of experience and education that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Education: Graduation with a Bachelor's Degree in electrical engineering from a college or university with an accredited four or five year degree program in electrical engineering. A Bachelor's Degree in civil or mechanical engineering from a college or university with an accredited four or five year degree program and two additional year's experience doing professional electrical utility engineering can substitute for an electrical engineering degree. The completion of post-graduate courses related to electric utility engineering is highly desirable. Registration as a Professional Engineer cannot substitute for the required education.

Experience: Three years' experience in professional electric utility engineering work comparable to that of a Senior Electrical Engineer in the City of Riverside Electric Utility.

Principal Water Engineer Education and Experience:

Any combination of experience and education that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Education: A Bachelor's Degree from an accredited college or university with major course work in civil engineering or a closely related area.

Experience: Five years' experience in the performance of professional water engineering work including a minimum of two years of supervisory experience.

Public Works Engineer Education and Experience:

Any combination of experience and education that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Education: Equivalent to a Bachelor's Degree from an accredited college or university with major course work in civil engineering.

Experience: Five years' experience in the performance of professional engineering work in the area of assignment including some supervisory experience.

MEDICAL CATEGORY: Group 1

NECESSARY SPECIAL REQUIREMENT

Possession of an appropriate, valid class "C" California Motor Vehicle Operator's License.

Registration in California as a professional engineer is highly desirable or may be required as a matter of law, depending on the assigned responsibilities.

CAREER ADVANCEMENT OPPORTUNITIES

FROM: Principal Engineer

TO: Deputy Public Works Director - Engineering Services

Public Utilities Assistant Director/Energy Delivery

Public Utilities Assistant Director/Water